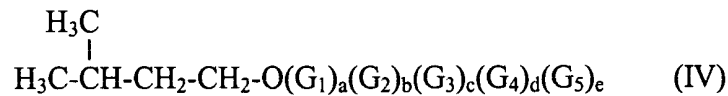
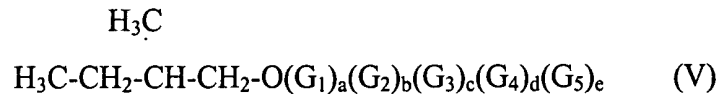


Appl. No. : 10/008,791
Filed : November 13, 2001

- from 45% to 80% of a mixture of polyglycosides of formula (IV):



- from 10% to 40% of a mixture of polyglycosides of formula (V):



35
in which G_1 , G_2 , G_3 , G_4 , and G_5 are, independently of each other, residues of a saccharide selected from the group consisting of hexoses and pentoses; a , b , c , d , and e being equal to 0 or 1, the sum of a , b , c , d , and e being at least equal to 1 and wherein the combination of compounds I, II, III, IV, and V, excluding any alkyl glycosides other than the compounds I, II, III, IV and V, represents 100%.

Claim 15. (Amended) A composition, comprising at least, on a weight basis:

- 36
- 10% to 60% of adjuvant according to Claim 9
- 40% to 90% of nonionic, anionic, amphoteric or cationic surfactants, or mixtures thereof.

REMARKS

Claims 4 and 12-14 have been cancelled. Claims 1, 5, 9, 10 and 15 have been amended. Claims 1-3, 5-11, and 15-25 are now pending in this application. Support for the amendments is found in the existing claims and the specification as discussed below. Accordingly, the amendments do not constitute the addition of new matter. Applicant respectfully requests the entry of the amendments and reconsideration of the application in view of the amendments and the following remarks.

The specific changes to the specification and the amended claims are shown on a separate set of pages attached hereto and entitled VERSION WITH MARKINGS TO SHOW CHANGES MADE, which follows the signature page of this Amendment. On this set of pages, insertions are underlined and deletions are struck through.

Specification

The specification has been amended to capitalize the names of trademarks. Generic terminology has been added.

Claim objections

Appl. No. : 10/008,791
Filed : November 13, 2001

The typographical error in Claim 15 has been corrected. Claims 12-14 have been cancelled. Consequently, objections to the claims may be properly withdrawn.

Rejection under 35 U.S.C. § 112, second paragraph

Claims 1-25 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 has been amended to clarify that the water is removed during the reaction when the fusel oils are in contact with one or more reducing sugars in the presence of an acid catalyst. Support for this amendment is found in the specification (see Example 1, page 21, lines 12-13).

Regarding the term "impurities", this term has been deleted from claims 9 and 10.

In view of Applicants' amendments, withdrawal of this ground of rejection is respectfully requested.

Rejection under 35 U.S.C. § 103(a)

Claims 1-25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rasche et al. (U.S. Patent No. 4,939,245) in view of Bertho et al. (U.S. Patent No. 6,087,403).

The Examiner asserts that Rasche et al. teach a method of preparing a glycoside product by: reacting an alcohol with a saccharide reactant (a monosaccharide) at an elevated temperature in the presence of an acid catalyst wherein a solvent is added to aid in removal of water. The Examiner states that Rasche et al do not teach the use of fusel oil as a source of alcohol for the reaction, the specific polyglycosidic adjuvants, removal of fractions above 140 °C and below 100 °C by distillation, nor to add additional surfactants/oils to the compositions.

The Examiner asserts that Bertho et al. teach a method of producing polyglycoside compositions comprising reacting mixtures of reducing sugars with alcohols in the presence of an acid catalyst where the reducing sugars are mixtures of pentoses and hexoses and the hexoses represent about 35%-75% and the pentoses 25% to 65% the weight of the polyglycosides. Bertho et al teach to optionally add other emulsifying agents, oils of plant, vegetable or animal origin, ionic or non-ionic thickeners, hydrotropic agents, preservatives and other common agents added to pharmaceuticals. The Examiner concludes that it would have been obvious to one of ordinary skill in the art to incorporate the additives of Bertho et al. into the product of Rasche et al. The Examiner asserts that the general reaction is old and that burden is on Applicants to show that the starting compound takes part in or effects that basic reaction to alter the nature of the

product or the operability of the process and thus unobviousness of the method of producing it. The Examiner further asserts that removal of heavy and light fractions by distillation prior to reacting the fusel oil was obvious.

In response, the claimed method differs from the method of Rasche et al. in that Rasche et al. do not teach removal of water during the reaction. If water is not removed during the reaction, the glycosides cannot be separated after reaction. This is shown by the Declaration of Yvon Le Henaff, submitted herewith. When the process of Rasche et al is carried out with fusel oil, glycosides cannot be separated from the reaction mix. Removal of water serves to pull the equilibrium of the reaction to the right so that a significant amount of alkyl glycoside product is formed. Without this step, the equilibrium of the reaction does not favor the alkyl glycoside products so that the product formed is insignificant and cannot be separated from the starting material.

As is well-known, a prima facie case of obviousness requires that three basic criteria be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and must not be based on Applicants' disclosure. In this case, the reference cited failed to teach or suggest all of the claim limitations. Neither Rasche et al. nor Bertho et al. teach water removal during the reaction. Water removal during the reaction is an element of claim 1 and is critical to the practice of the claimed invention as shown by the Declaration of Yvon Le Henaff.

In view of Applicants' amendments and arguments, reconsideration and withdrawal of this ground of rejection is respectfully requested.

CONCLUSION

In view of Applicants' amendments to the claims and the foregoing Remarks, it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any remaining concerns which might prevent the prompt allowance of the application, the Examiner is respectfully invited to contact the undersigned at the telephone number appearing below.

Appl. No. : 10/008,791
Filed : November 13, 2001

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated:

April 11, 2003

By:

Che S. Chereskin

Che Swyden Chereskin
Registration No. 41,466
Agent of Record
Customer No. 20,995

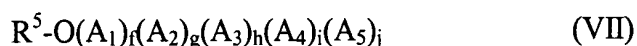
VERSION WITH MARKINGS TO SHOW CHANGES MADE

The specification has been amended as follows:

The paragraph beginning at page 12, line 12 has been amended as follows:

The nonionic surfactants may be:

- polyoxyalkylenated (polyoxyethylenated, polyoxypropylenated or polyoxybutylenated) alkylphenols in which the alkyl substituent is C₆-C₁₂ and containing from 5 to 25 oxyalkylene units; examples which may be mentioned include the TRITONTM-X (polyethylene glycol p-isooctylphenyl ether) products Triton X-45, X-114, X-100 or X-102 sold by Rohm & Haas Co.;
- glucosamides and glucamides;
- glycerolamides derived from N-alkylamines (US-A-5 223 179 and FR-A-1 585 966);
- polyoxyalkylenated C₈-C₂₂ aliphatic alcohols containing from 1 to 25 oxyalkylene (oxyethylene or oxypropylene) units; examples which may be mentioned include the TERGITOLTM (nonylphenol polyethylene glycol ether) products Tergitol-15-S-9 and Tergitol 24-L-6 NMW sold by Union Carbide Corp., Neodol 45-9, Neodol 23-65, Neodol 45-7 and Neodol 45-4 sold by Shell Chemical Co., and Kryo EOB sold by The Procter & Gamble Co.;
- products resulting from the condensation of ethylene oxide with a hydrophobic compound resulting from the condensation of propylene oxide with propylene glycol, such as PLURONICTM (block copolymers of ethylene oxide and propylene oxide) products sold by BASF;
- ~~products resulting from the condensation of ethylene oxide, or the compound resulting~~ from the condensation of propylene oxide, with ethylenediamine, such as the ~~Tetronic~~ TETRONICTM (block copolymers derived from addition of ethylene oxide and propylene oxide to ethylene diamine) products sold by BASF;
- amine oxides such as C₁₀-C₁₈ alkyl dimethylamine oxides and C₈-C₂₂ alkoxy ethyl dihydroxy ethylamine oxides;
- the alkyl polyglycosides of formula VII below:



Appl. No. : 10/008,791
Filed : November 13, 2001

in which A₁, A₂, A₃, A₄ and A₅ are, independently of each other, residues of a saccharide chosen from hexoses and more particularly D-glucose; pentoses, the latter preferentially being chosen from arabinose and xylose; f, g, h, i and j being equal to 0 or 1, the sum of f, g, h, i and j being at least equal to 1; R⁵ being a linear or branched alkyl radical of 6 to 22 carbon atoms, a hydrocarbon-based radical containing from 1 to 4 ethylenic unsaturations and from 6 to 22 carbon atoms or one of these radicals substituted with 1 to 3 substituents on different carbon atoms, chosen from hydroxyl, halogen and trifluoromethyl;

- C₈-C₂₀ fatty acid amides;
- ethoxylated fatty acids;
- ethoxylated fatty amides;
- ethoxylated amines.

The paragraph beginning at page 17, line 18 has been amended as follow:

The lipophilic active substances to be dissolved may be:

- ~~essential oils such as, for example, cluster pine oil or Scotch pine oil, oils of citrus plants~~ such as lemon, grapefruit, orange or mandarin, cereal oils such as wheat gluten oil, wheat germ oil, aniseed oil, bitter almond oil, birch oil, camomile oil, bergamot oil, cinnamon oil or lemongrass oil, oils of aromatic plants such as white thyme, red thyme, rosemary, mint, eucalyptus, basil, tarragon, laurel, oregano or vervain, juniper oil, clove oil, lavender oil, geranium oil, cedar oil, coriander oil, common juniper oil, everlasting oil and marjoram oil;
- synthetic aromatic products such as, for example, aromatic esters, for instance benzyl, linalyl, terpenyl, vetiveryl, amyl, bornyl, cedryl, geranyl, phenylethyl, para-cresyl or styryl acetate, amyl butyrates, eugenol, geraniol, anisyl alcohol, cinnamyl alcohol, styryl alcohol, aldehydes such as octyl, nonyl, decyl, undecylenyl, lauryl, myristyl, cetyl and stearyl aldehyde, benzaldehyde and anisaldehyde, synthetic camphor and limonene;
- natural or synthetic fragrances;
- lipophilic cosmetic adjuvants;
- glycolipids such as, for example, sophorose lipids;

Appl. No. : 10/008,791
Filed : November 13, 2001

- preserving agents such as the methyl, ethyl, propyl and butyl esters of p-hydroxybenzoic acid, sodium benzoate, ~~Germaben®~~ GERMABEN™ (diazolidinyl urea) or any chemical agent for preventing bacterial or ~~mould-mold~~ proliferation which is traditionally used in cosmetic compositions are generally introduced into these compositions to a proportion of 0.01% to 3% by weight;
- UV-A active and/or UV-B active organic sunscreens for protecting the skin or the hair against attack from sunlight and UV rays, for instance the compounds permitted in European Directive No. 76/768/EEC, its appendices and the subsequent modifications of this directive;
- insect repellents;
- vitamins;
- colorants;
- plant-protection active materials, for instance herbicides, fungicides and insecticides, such as those described in the Pesticide Manual (9th edition, C.R. Workling and R.J. Hance, editors, published by The British Crop Protection Council);
- rapeseed methyl ester;
- proteins;
- lipophilic pharmaceutical ingredients, etc.

The compositions that are most particularly preferred according to the invention are those comprising, on a weight basis:

- 0.5% to 5% of adjuvant according to the invention,
- 1% to 10% of alkyl polyglycosides containing from 8 to 14 carbon atoms on the alkyl chain,
- 1% to 10% of linear or branched alkanols containing from 2 to 5 carbon atoms, or mixtures thereof,
- 0.1% to 2% of essential oil,
- 0% to 0.5% of preserving agent, for instance the methyl, ethyl, propyl and butyl esters of p-hydroxybenzoic acid, sodium benzoate, GERMABEN™ (diazolidinyl urea) ~~Germaben®~~ or any chemical agent for preventing bacterial or ~~mould-mold~~ proliferation which is traditionally used in cosmetic and detergent compositions.

Appl. No. : 10/008,791
Filed : November 13, 2001

Claims 1, 5, 9, 10 and 15 have been amended as follows:

Claim 1. (Amended) A process for preparing a solubilization adjuvant, comprising:

removing the light fractions from the fusel oils which have boiling points of less than 100°C;

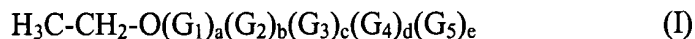
placing fusel oils in contact with one or more reducing sugars in the presence of an acid catalyst, at a temperature of between 50°C and 130°C ~~and~~ while removing the water from the reaction medium;

obtaining until a solution of alkyl glycosides is obtained; and
separating the glycosides from this solution.

Claim 5. (Amended) The process according to Claim 4-1 comprising removing the light fractions from the fusel oils which have boiling points of less than 100°C, by distillation.

Claim 9. (Amended) An adjuvant, comprising, on a weight basis, ~~with the exception of the impurities:~~

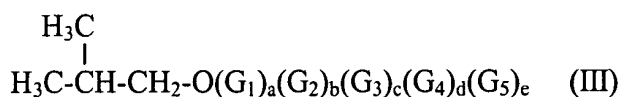
- from 0% to 20 % of a mixture of polyglycosides of formula (I):



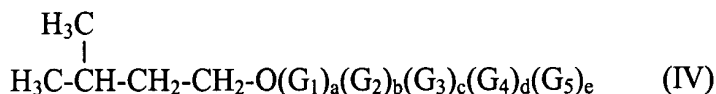
- from 0% to 5% of a mixture of polyglycosides of formula (II):



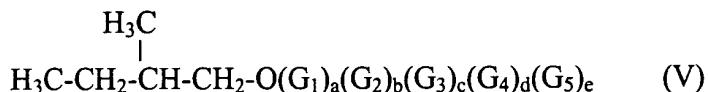
- from 0% to 15% of a mixture of polyglycosides of formula (III):



- from 20% to 80% of a mixture of polyglycosides of formula (IV):



- from 10% to 40% of a mixture of polyglycosides of formula (V):



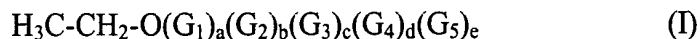
in which G₁, G₂, G₃, G₄, and G₅ are, independently of each other, residues of a saccharide selected from the group consisting of hexoses and pentoses; a, b, c, d, and e being equal to 0 or 1, the sum of a, b, c, d, and e being at least equal to 1 and wherein the combination of compounds I,

Appl. No. : 10/008,791
Filed : November 13, 2001

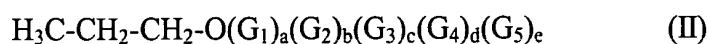
II, III, IV, and V, excluding the impurities and any alkyl glycosides other than the compounds I, II, III, IV and V, represents 100%.

Claim 10. (Amended) An adjuvant comprising at least, on a weight basis, ~~with the exception of the impurities:~~

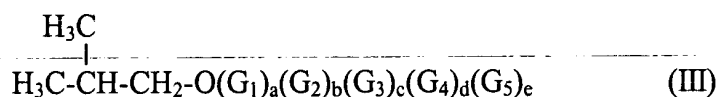
- from 0% to 20 % of a mixture of polyglycosides of formula (I):



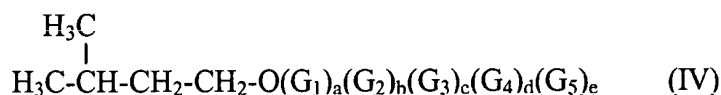
- from 0% to 5% of a mixture of polyglycosides of formula (II):



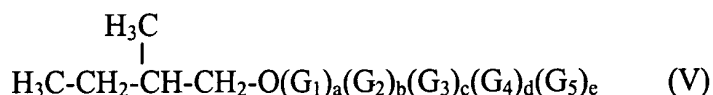
- from 0% to 20% of a mixture of polyglycosides of formula (III):



- from 45% to 80% of a mixture of polyglycosides of formula (IV):



- from 10% to 40% of a mixture of polyglycosides of formula (V):



in which G_1 , G_2 , G_3 , G_4 , and G_5 are, independently of each other, residues of a saccharide selected from the group consisting of hexoses and pentoses; a , b , c , d , and e being equal to 0 or 1, the sum of a , b , c , d , and e being at least equal to 1 and wherein the combination of compounds I, II, III, IV, and V, excluding the impurities and any alkyl glycosides other than the compounds I, II, III, IV and V, represents 100%.

Claim 15. (Amended) A composition, ~~comprising~~ comprising at least, on a weight basis:

- 10% to 60% of adjuvant according to Claim 9
- 40% to 90% of nonionic, anionic, amphoteric or cationic surfactants, or mixtures thereof.